**Lab 5: Retrieving Data from the Database**

Scenario:

The store wants to display product details on the dashboard.

Objective:

Use Find, FirstOrDefault, and ToListAsync to retrieve data.

Code:

Program.cs

using Microsoft.EntityFrameworkCore;

using RetailInventory;

class Program

{

static async Task Main(string[] args)

{

using var context = new AppDbContext();

// Add categories

var electronics = new Category { Name = "Electronics" };

var groceries = new Category { Name = "Groceries" };

await context.Categories.AddRangeAsync(electronics, groceries);

await context.SaveChangesAsync();

// Add products

var product1 = new Product { Name = "Smartphone", Price = 25000, CategoryId = electronics.Id };

var product2 = new Product { Name = "Milk", Price = 50, CategoryId = groceries.Id };

var product3 = new Product { Name = "Laptop", Price = 20000, CategoryId = electronics.Id };

await context.Products.AddRangeAsync(product1, product2, product3);

await context.SaveChangesAsync();

//Retrieve All Products:

var products = await context.Products.ToListAsync();

foreach (var p in products)

Console.WriteLine($"{p.Name} - ₹{p.Price}");

//Find by ID:

var product = await context.Products.FindAsync(1);

Console.WriteLine($"Found: {product?.Name}");

// Query expensive products

var expensive = await context.Products.FirstOrDefaultAsync(p => p.Price > 5000);

Console.WriteLine($"Expensive product: {expensive?.Name}");

}

}

